

Date: Thu, 12 May 94 04:30:19 PDT  
From: Ham-Homebrew Mailing List and Newsgroup <ham-homebrew@ucsd.edu>  
Errors-To: Ham-Homebrew-Errors@UCSD.Edu  
Reply-To: Ham-Homebrew@UCSD.Edu  
Precedence: Bulk  
Subject: Ham-Homebrew Digest V94 #126  
To: Ham-Homebrew

Ham-Homebrew Digest                      Thu, 12 May 94                      Volume 94 : Issue    126

Today's Topics:

    INSTRUCTION/OPERATORS MANUALS up for grabs:  
        MOSFET Power Amp Schematics/Info ???  
    Need info about packet Ham Radio - FAQ anywhere?  
        UHF Power amps.  
        UHF Push/Pull design ?  
    Wanted : Cheap, available varacter diode source

Send Replies or notes for publication to: <Ham-Homebrew@UCSD.Edu>  
Send subscription requests to: <Ham-Homebrew-REQUEST@UCSD.Edu>  
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Homebrew Digest are available  
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-homebrew".

We trust that readers are intelligent enough to realize that all text  
herein consists of personal comments and does not represent the official  
policies or positions of any party. Your mileage may vary. So there.

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Date: 11 May 1994 17:45:29 GMT  
From: ihnp4.ucsd.edu!news.service.uci.edu!mothra.nts.uci.edu!  
lockhart@network.ucsd.edu  
Subject: INSTRUCTION/OPERATORS MANUALS up for grabs:  
To: ham-homebrew@ucsd.edu

I have the following INSTRUCTION/OPERATORS MANUALS up for grabs:

HY-GAIN THUNDERBIRD (TH3Mk30 THREE ELEMENT HAM ANTENNA

CDE HAM II ROTOR

These INSTRUCTION/OPERATORS MANUALS are in various states of  
condition. Some are in good condition and some are in poor condition.

The intent is to give these INSTRUCTION/OPERATOR MANUALS to an individual or entity who ACTUALLY has the equipment.

The first person to send me e-mail gets the booty. Please send a separate e-mail request for each INSTRUCTION OR OPERATORS MANUAL. You will be asked to send a SASE (large manila or other envelope) with the appropriate amount of U.S. postage to me c/o the address in my .sig file.

Good luck to one and all.

73.

~jack\_

[illegible]

Date: Tue, 10 May 1994 11:26:28 GMT  
From: ihnp4.ucsd.edu!galaxy.ucr.edu!library.ucla.edu!europa.eng.gtefsd.com!  
howland.reston.ans.net!pipex!uknet!dcl-cs!ega066@network.ucsd.edu  
Subject: MOSFET Power Amp Schematics/Info ???  
To: ham-homebrew@ucsd.edu

In class-C type operation you won't find the drain voltage swinging negative. Ignoring the FET on-resistance, the average drain voltage would simply be the DC supply level,  $V$ , and in operation the drain voltage would swing from 0V to 2V. Practically, the device on-resistance limits the downward swing to a few volts, however. Therefore it's better to use high supply voltages for FETs (ie. higher than 12V), to increase the

voltage swing available.

Quite a good way to drive FETs is a simple complementary emitter-follower pair. This configuration can provide sufficient current to charge/ discharge the effective gate capacitance, which can be large for power devices being switched on/off. The only problem is getting hold of a PNP device with high ft. It does save messing about with matching networks, though. Motorola note AR-141 in their RF Device book give good info on this subject, with regard to driving class-D/E DMOS FET stages.

For low power HF operation, switching FETs have a lot going for them. They are very easy to bias, cheap, they don't exhibit thermal runaway and it's easy to drive them.

Good luck,,

Simon GOGWA.

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Date: Thu, 12 May 1994 01:05:28  
From: ihnp4.ucsd.edu!muninari.oz.au!newshost.anu.edu.au!slipr6.anu.edu.au!  
Martin.Stephenson@network.ucsd.edu  
Subject: Need info about packet Ham Radio - FAQ anywhere?  
To: ham-homebrew@ucsd.edu

I am looking for any info about packet ham radio. Like where can I find an FAQ? :-) I am pretty well after enough information to get someone started with packet ham radio.

My Father was a keen Radio Ham until he moved to Egypt. The easiest way to access the Internet from Egypt would be via Ham radio. The Egyptian telecommunications system stopped being developed sometime in the stone age, and so normal access methods are not economically possible.

I thought this group might be a good place to start to find out more about packet ham radio.

Thanks for any help.

Martin.Stephenson@anu.edu.au

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Date: Tue, 10 May 1994 13:08:03  
From: ihnp4.ucsd.edu!muninari.oz.au!foxhound.dsto.gov.au!fang.dsto.gov.au!  
yoyo.aarnet.edu.au!news.adelaide.edu.au!rem-ppp-00.cs.adelaide.edu.au!

jfk@network.ucsd.edu  
Subject: UHF Power amps.  
To: ham-homebrew@ucsd.edu

Hi,

Does anyone know of any good articles or books with practical circuits for the construction of power amps for 70cm.

Also any hints on reducing receiver desense when TX on UHF and RCV on 2.4Ghz, Oscar 13 Mode S.

73's

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Date: 10 May 1994 09:48:38 GMT  
From: ihnp4.ucsd.edu!dog.ee.lbl.gov!agate!howland.reston.ans.net!math.ohio-state.edu!jussieu.fr!univ-lyon1.fr!elendir@network.ucsd.edu  
Subject: UHF Push/Pull design ?  
To: ham-homebrew@ucsd.edu

Hi !

I have been scared by the price of the latest VHF/UHF all mods rigs. So I decided to build my own. However, I'm looking for a UHF Push-Pull design. The very problem I have is in the design of the 180 degrees phase shifter. In VHF, I can use a small transformer with a ground tap in the middle, but this cannot be applied to UHF. I thought about a printed transformer or a transistor operating as an inverter. Neither those seem really satisfactory. Does someone have any clue ?

Thanks and 73 !

Vince.

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PSG --- Paris SG football club. | Ham radio call : F1RCS  
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ENST - Ecole Nationale Supérieure des Telecommunications, Paris, France  
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Date: Wed, 11 May 1994 21:02:46 +800  
From: ihnp4.ucsd.edu!newshub.sdsu.edu!nic-nac.CSU.net!usc!howland.reston.ans.net!nctuccca.edu.tw!news.cc.nctu.edu.tw!rs540.ncu.edu.tw!ccvax.sinica.edu.tw!  
bodafu@network.ucsd.edu

Subject: Wanted : Cheap, available varacter diode source  
To: ham-homebrew@ucsd.edu

dean@splinter.coe.neu.edu (Dean Gelabert) writes:

> Hi:  
> I'd like to begin experimenting w/ varacter diodes. Can anyone  
> recommend an inexpensive, readily available, easy to work w/  
> device? Where can I get a few to play with?  
>  
> -Dean

Dean

Any diode will act as a variable cap when reverse biased. The doohickies sold as 'varacters' have a wider response and more closely specified properties, but for experimentation any diode will do. I had good results fine tuning a SW receiver using the first small-signal diode I grabbed out of the junk box. The non-conducting region in the reverse-biased diode acts as a dielectric between the terminals; this is the cap. Varying the voltage changes the thickness of the non-conduction region, and thus changes the capacitance.

David

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David L. Bergart      bodafu@ccvax.sinica.edu.tw      bodafu@TWNAS886.bitnet  
Copy oddity^h^h^h^h^h^heditor, Botanical Bulletin of Academia Sinica, Taiwan  
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End of Ham-Homebrew Digest V94 #126

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